



Birds & Mammals on the Range Activity

Created by: Randy Skaggs	Time Required: 30-45 minutes
Subject: Biology	Grade Level: 9-12

Overview	To introduce and/or increase knowledge and awareness of the numerous birds and mammal species that utilize rangelands in Idaho (as well as in the U.S.).
Goal(s) & Objective(s)	Students will be able to recognize characteristics of animals and name them based off of these characteristics.
Prerequisites & Materials	<p>Prior discussion of both vertebrate (mammals, birds) groups should occur before <u>attempting this activity.</u></p> <p>Materials:</p> <ul style="list-style-type: none">• Handouts (quiz/surveys) on “Birds” and “Mammals.” (included)• Computer access for assistance, with recommended web-sites.
Teaching Activities: <i>Instructional Approaches/Strategies</i>	<p>Procedures</p> <p>1-Give students background on rangelands and the animals that live there.</p> <p>2-Go to computer lab and have students work on activity</p> <p>Closure</p> <p>Review Birds & Mammals with class</p>

Attachments:

Bird & Mammal Activity with KEY

Materials and Preparation: Handouts; general knowledge of bird & animal life of ID.

*For quick reference, here is a listing of the birds and mammals mentioned in this

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activity and the groups they belong to. These lists may be good to provide for your class(es), depending on the knowledge level of your kids.

BIRDS

Falconiformes

turkey vulture
golden eagle
red-tailed hawk
American kestrel
prairie falcon

Galliformes

sage grouse

Charadriiformes
killdeer
upland sandpiper
long-billed curlew
common snipe

Columbiformes

mourning dove

Strigiformes

burrowing owl

Caprimulgiformes

common nighthawk

Passeriformes

western kingbird (tyrant flycatcher)
horned lark (lark)
common crow (Corvid)
black-billed magpie (Corvid)
Stellar's jay (Corvid)
mountain bluebird (thrush)
sage thrasher (thrasher)
loggerhead shrike (shrike)

bobolink (Icterid)
western meadowlark (Icterid)
red-winged blackbird (Icterid)
yellow-headed blackbird (Icterid)
brown-headed blackbird (Icterid)
Scott's oriole (Icterid)
sage sparrow (sparrow)

MAMMALS

Lagomorpha

mountain cottontail
snowshoe hare
black-tailed jackrabbit
white-tailed jackrabbit
pika (American)

Artiodactyla

elk
moose
mule deer
pronghorn
mountain goat
bighorn sheep
white-tailed deer

Carnivora

coyote
red fox
mountain lion
badger (American)
striped skunk
long-tailed weasel
wolverine

Rodentia

Chipmunks, Marmots, Squirrels

least chipmunk
Uinta ground squirrel
Columbian ground squirrel
golden-mantled ground squirrel
yellow-bellied marmot
groundhog
black-tailed prairie dog

Idaho Ground squirrel

Rock Squirrel

Mice, Rats, Voles

deer mouse
meadow vole
sagebrush vole
Ord's kangaroo rat

Background:

Rangelands occupy almost half of the Earth, and this is also true for most of the western half of the U.S., including Idaho. The term “rangeland” can be misleading; causing one to think this is just pasture land for livestock grazing. Rangelands typically receive low levels of precipitation and are not suitable for farming. In the U.S., this includes regions known as grasslands, scrublands, woodlands, and deserts, just to name a few. It’s apparent that rangelands occur in a variety of regions, and there is much overlap between biomes. This activity focuses on some of the wildlife that call rangelands their home. Birds and mammals common to Idaho are addressed separately on 2 handouts in a quiz format. As students will discover as they research information on wildlife listed in the activities, there will be familiar as well as the unfamiliar. They can learn how animals use the land, interact with the surrounding flora and fauna, and discover how some animal’s activities can be beneficial to various ecosystems. Wildlife provides humans with many opportunities. Hunting can put food on the table, but it can also aid in a person learning a little about the land, becoming familiar with various habitats. And it’s through the pursuit of game that many hunters discover the diversity of nature. A greater appreciation for the wildlife as well as the land may occur, but often takes time. Wildlife viewing and photography also provides a form of recreation. There is an economic impact in many respects involving wildlife, from gear and licenses purchased, to various fees and expenses incurred during these outdoor adventures. Without the wildlife, there would be a lot less income for many businesses. We continue to learn more about wildlife, and often ourselves, through research projects. One study in Colorado found that 22 species of animals utilized burrows of ground squirrels. And the activity of ground squirrels and other burrowing animals tends to improve the quality of the soil. Through this activity students may primarily learn a little about birds and mammals of the region, but it may branch out in many directions as well. Sometimes we just need to get them started.

“At Home on the Range – Birds”

An estimated 74% of birds in North America spend a portion of their life in rangelands. Some simply pass through during migration, but others may spend the summer or winter, and still others are permanent residents. So whether birds are nesting, in search of food, or moving to more favorable grounds, you can expect to find a large variety on our rangelands.

A. Answer the following questions, seeking help when needed from:

<http://imnh.isu.edu/digitalatlas/bio/birds/birds.htm>

*also, an excellent bird site is: <http://www.allaboutbirds.org>

1. Which one of the following birds is not regulated by hunting?
 - a. sage grouse
 - b. turkey vulture
 - c. mourning dove
 - d. common snipe
2. What bird utilizes prairie dog burrows to nest in?
 - a. common nighthawk
 - b. prairie falcon
 - c. burrowing owl
 - d. bobolink
3. All of the following are birds of prey *except*:
 - a. red-tailed hawk
 - b. golden eagle
 - c. American kestrel
 - d. killdeer
4. A bird that **does not** nest among sagebrush is the:
 - a. western kingbird
 - b. sage sparrow
 - c. sage thrasher
 - d. loggerhead shrike
5. A blackbird that is known to parasitize (use nests) of other birds is:
 - a. black-billed magpie
 - b. American crow
 - c. red-winged blackbird
 - d. brown-headed cowbird
6. A prairie shorebird with long, yellowish legs that has a habit of whistling from the top of fence posts is the:
 - a. western meadowlark
 - b. killdeer
 - c. upland sandpiper

- d. long-billed curlew
7. The Idaho state bird is the:
- a. western bluebird
 - b. Stellar's jay
 - c. sage grouse
 - d. mountain bluebird
8. Jackrabbits are the main menu choice (in Idaho) for the:
- a. American kestrel
 - b. burrowing owl
 - c. golden eagle
 - d. horned lark
9. A tall shorebird that prefers grassy meadows and possesses a sickle-shaped bill is none other than the:
- a. common snipe
 - b. long-billed curlew
 - c. upland sandpiper
 - d. killdeer
10. A relation to blackbirds, the ____?____ is mostly black with white and cream-colored areas, and prefers areas with tall grass.
- a. bobolink
 - b. yellow-headed blackbird
 - c. western meadowlark
 - d. Scott's oriole

Rankings:

- 0 – 2 Correct - you may want some new binoculars.***
- 3 – 5 Correct - try using the field guide more frequently.***
- 6 – 8 Correct - Audubon thinks you have potential.***
- 9 –10 Correct - can you lead the next bird-a-thon?***

“At Home on the Range – Mammals”

An estimated 84% of mammals in North America spend a portion of their life in rangelands. A few move into and out of areas, but most are permanent residents of the region they are in. From wide-open spaces to the secluded mountain meadows, most of our mammals can be found somewhere out on our vast rangelands.

A. Answer the following questions, seeking help when needed from:

<http://imnh.isu.edu/digitalatlas/bio/mammal/mamfram.htm>

<http://www.enature.com/fieldguides/> - click on mammals

B. Match the following carnivores with the correct description:

- | | |
|---------------------------|--|
| ___ 1. long-tailed weasel | a. canine enemy of the gray wolf; genus <i>Canis</i> |
| ___ 2. red fox | b. diet can consist of mule deer 75% of the time |
| ___ 3. coyote | c. has black “leggings” and a white-tipped tail |
| ___ 4. mountain lion | d. has well-developed scent glands |
| ___ 5. striped skunk | e. long, black-tipped tail; body turns white |

C. Match the following ruminants with the correct description:

- | | |
|---------------------------|--|
| ___ 6. elk | a. Native Americans utilized every part |
| ___ 7. moose | b. antlers have 1 main beam w/ tines |
| ___ 8. bison | c. bull has massive antlers; a.k.a. wapiti |
| ___ 9. mule deer | d. largest member of the deer family |
| ___ 10. white-tailed deer | e. antlers fork, usually twice; large ears |

D. Match the following rodents with the correct description:

- | | |
|----------------------------|--|
| ___ 11. least chipmunk | a. long tail; strictly nocturnal; sandy soils |
| ___ 12. deer mouse | b. hibernates; diurnal; sagebrush areas in ID |
| ___ 13. Ord’s kangaroo rat | c. found in dry climates; soles densely furred |
| ___ 14. sagebrush vole | d. large ears; distinctly bi-colored tail |
| ___ 15. meadow vole | e. prefers moist soil; does not hibernate |

E. Select the correct/best answer for the following questions:

- ___ 16. This ground squirrel will hibernate almost $\frac{3}{4}$'s of a year, and is the only unprotected mammal in Idaho. Who am I?
- golden-mantled ground squirrel
 - Columbian ground squirrel
 - Idaho ground squirrel
 - Uinta ground squirrel
- ___ 17. This hoofed mammal has an oversized heart and lungs which helps it escape from predators. Bucks shed the sheath of their horns each year. Sagebrush is a preferred and necessary food source for the ____? ____.
- pronghorn

- b. bighorn sheep
- c. mountain goat
- d. white-tailed deer

____ 18. A rodent that feeds almost exclusively on grass at higher elevations, and is also called by some as a rockchuck or whistle pig, is the _____?

- a. pika
- b. yellow-bellied marmot
- c. rock squirrel
- d. groundhog

____ 19. Some features of this mammal are long, black-tipped ears and large hind feet. It is more common and widespread than its close relative. Lives in open country and has adapted well to agricultural regions. The mammal being described is the _____?

- a. snowshoe hare
- b. mountain cottontail
- c. white-tailed jackrabbit
- d. black-tailed jackrabbit

____ 20. What mammal has some black and white markings, body low to the ground, and uses its powerful ability to dig to obtain its prey, which is typically a rodent? (Also, it's a mascot of a Big 10 university)

- a. black-tailed prairie dog
- b. striped skunk
- c. wolverine
- d. badger

0 – 5 Correct	- play less video games and discover some nature channels
6 – 10 Correct	- you're learning, but could be better
11 – 15 Correct	- nice work; you must get outside a little
16 – 20 Correct	- apply for director of U.S. Fish & Wildlife Division

Birds & Mammals on the Range

– Birds (Key)

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| <u>c</u> 2. red fox | b. diet can consist of mule deer 75% of the time |
| <u>a</u> 3. coyote | c. has black “leggings” and a white-tipped tail |
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| <u>d</u> 5. striped skunk | e. long, black-tipped tail; body turns white |

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